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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,550	02/03/2004	Robert L. Horton	11836.0748.NPUS00	5502

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OSHA LIANG/MI  
ONE HOUSTON CENTER  
SUITE 2800  
HOUSTON, TX 77010

EXAMINER

SUCHFIELD, GEORGE A

ART UNIT PAPER NUMBER

3676

DATE MAILED: 02/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/772,550

Applicant(s)

HORTON ET AL.

Examiner

George Suchfield

Art Unit

3676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3,5-7,9,11 and 12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-7,9,11 and 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1, 3, 5, 7, 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thaemlitz et al (6,989,354) in view of Parlar et al (6,631,764).

Thaemlitz et al discloses a process of inverting an invert emulsion drilling fluid to an oil-in-water emulsion, as well as changing the wettability of the filter cake emplaced by the invert emulsion (note col. 2, line 45 - col. 3, line 30; col. 6, lines 43-67; col. 7, lines 20-42). Thaemlitz et al further employs an amine surfactant that corresponds to the formula set forth in independent claims 1 and 7. It is further noted that Thaemlitz et al effects such emulsion or filter cake inversion or phase change by subsequent injection of an acid solution, which may comprise an organic acid. With respect to claims 1 and 7, it is deemed that the said acid solution which is injected to invert the drilling fluid and filter cake can necessarily or obviously be construed as a "pill", as broadly recited, insofar as the acid solution clearly comprises a slug or discrete amount of fluid to accomplish the inversion/phase change.

Thaemlitz et al does not disclose an amine acid as the organic acid or include a viscosifier in the acid solution or "pill". Parlar et al (note col. 2, line 35 - col. 3, line 67), however, discloses a method of removing a filter cake from a well bore wherein, in one embodiment, the filter cake is emplaced during the drilling phase with an invert emulsion, and the filter cake removal is effected by injecting a slug or "pill" comprising an acid solution to reverse the wettability of the filter cake, i.e., invert the invert emulsion drilling fluid within the filter cake,. It is further noted that such acid may comprise an amine acid, such as "EDTA", and the acid solution may further comprise a viscosifier.

Accordingly, it would have been obvious to one of ordinary skill in the art to which the invention pertains, to similarly employ an amine acid, such as EDTA, as the organic acid in the acid solution or “pill” injected in the process of Thaemlitz et al, and further obvious to include a viscosifier in the acid solution injected in the process of Thaemlitz et al, as taught by Parlar et al, in order to increase or enhance the overall efficiency of the Thaemlitz et al process for inverting and removing the invert emulsion drilling fluid and/or filter cake from the well bore, thus facilitating subsequent well bore completion, such as cementing a well casing.

As per claims 5 and 11, Thaemlitz et al, overall, is deemed to encompass the use of an “alkali salt solution” insofar as brine or saline fluids are notoriously well known and conventional aqueous medium well completion/treatment fluids in the well art.

3. Claims 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thaemlitz et al (6,989,354) in view of Parlar et al (6,631,764) as applied to claims 1 and 7 above, and further in view of Dobson, Jr. et al (6,325,149).

Dobson, Jr. et al discloses the use of hydroxyethylcellulose as a viscosifier for a well treatment fluid or “pill”.

Accordingly, it would have been obvious to one of ordinary skill in the art to which the invention pertains, to similarly employ hydroxyethylcellulose as the viscosifier in the modified process of Thaemlitz et al, as taught by Dobson, Jr. et al, based on, e.g., the availability or cost-effectiveness of hydroxyethylcellulose, relative to other conventional well treatment fluid viscosifiers or thickening agents.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 3676

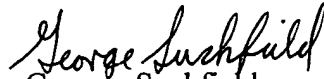
Other references disclose removal of invert drilling fluid and/or filter cake from the well bore.

5. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Suchfield whose telephone number is 571-272-7036. The examiner can normally be reached on M-F (6:30 - 3:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Glessner can be reached on 571-272-6843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
George Suchfield  
Primary Examiner  
Art Unit 3676

Gs  
February 1, 2006